Appl No. 10/808,206
Response dated December 21, 2005
Reply to Office Action of Sept. 21, 2005

IN THE CLAIMS:

Please amend the claims to read as follows:

1. (Currently Amended) A pressure regulator and gaseous fuel internal combustion engine, comprising:

(a) an internal combustion engine including a fuel line source having an outlet in communication with the engine, the fuel line including a controllable valve for regulating the gaseous fuel pressure at the outlet;

(b) a variable venturi or fixed venturi carburetor in communication with the fuel line outlet and the engine;

(c) a first sensor providing a first signal corresponding to gaseous fuel pressure at the outlet;

(d) a controller responsive to the first signal for controlling the valve and regulating gaseous fuel pressure to a desired pressure value, wherein the controllable valve defines said desired pressure value for the fuel that enters the engine via the outlet; and

(e) wherein the controllable valve is a rotary actuated butterfly valve.

2. (Original) The engine of claim 1, wherein the desired pressure is set by a user.

3. (Currently Amended) A pressure regulator and gaseous fuel internal combustion engine, comprising:

(a) an internal combustion engine including a fuel source and line having an outlet in communication with the engine, the fuel line including a controllable valve for regulating the gaseous fuel pressure at the outlet;

(b) a variable venturi or fixed venturi carburetor in communication with the fuel line outlet and the engine;

(c) a first sensor providing a first signal corresponding to gaseous fuel pressure at the outlet;

(d) at least one additional sensor for measuring at least one of the following conditions: Manifold Absolute Pressure, engine speed, Manifold Air Temperature, Engine Coolant Temperature, EGO, UEGO, Barometric Pressure, Engine Mass Air Flow, Throttle

Position, and Throttle Inlet Pressure;

(e) a calculator for calculating a desired gaseous fuel pressure at the outlet based on the input from the additional sensor in "d" and providing a second signal corresponding to the desired gaseous fuel pressure;

(f) a controller responsive to the second signal moving the controllable valve; and

(g) wherein the controllable valve is a rotary actuated butterfly valve that is responsive to the controller to adjust the gaseous fuel pressure at the outlet and obtain the desired gaseous fuel pressure value for the fuel that enters the engine via the outlet .